NPIC/TSSG/DED-1626-69
26 May 1969

MEMORANDUM FOR THE RECORD

25X1 SUBJECT: [redacted] Model II Rhomboids

1. There is a great deal of attention currently focused upon the Advanced Rhomboids. The rhomboids are needed for the [redacted] system where they 25X1
25X1 will be mounted upon the 1540 Light Tables to produce a viewing system capable of handling [redacted] roll film form. Most of the current activity revolves around the problem of should we, or should we not, obligate FY-69 Equipment funds for production quantities of the rhomboids.

2. Toward this end, a series of meetings have been held with representatives of IEG, PPBS and TSSG/DED. At these sessions the Development & Engineering Division briefed IEG and PPBS on the technical problems involved in the development of the Model II Rhomboid package. Currently, the main problem is in the area of coating and aligning the complex sliding prismatic assembly utilized to select monoscopic or stereoscopic modes of viewing. The Rhomboid prototype has been examined by DED, and it is apparent that the mechanical configuration is quite good, i.e., from an operational and Human Factors standpoint the instrument should be operationally efficient and comfortable to use. It should be a very successful instrument--assuming that the current optical problems can be resolved. One optical path has been optimized for binocular monoscopic viewing at the expense of the other two optical channels. The image as seen through this optimized channel was quite good, very closely approaching our specifications. This gives us some degree of confidence that the device can be made to work as specified.

3. We currently have a quote on options for improving the optical per-
25X1 formance of the Stereo Rhomboids. These quotations vary from [redacted] through 25X1
25X1 [redacted] depending upon the option chosen. To these figures must be added 25X1
25X1 an additional [redacted] to cover [redacted] costs incurred over and above the allocated funding. [redacted] has promised to forward a detailed discussion listing the current problem areas and proposed solutions by 28 May. This discussion would include detailed schedules and a discussion relating probability of success for each technical option.

4. At this series of meetings with IEG and PPBS, the question was asked of DED: "Is it possible to obligate 69 funds for production versions of the Rhomboids?" DED answered in the affirmative, pointing out that it was possible to obligate the funding but that there were technical risks involved. DED will not know for certain that they have a successful development until the prototype has been delivered, tested, and accepted. To obligate

25X1

SUBJECT: [redacted] Model II Rhomboids

funds prior to that date makes it difficult for us to write definitive specifications for production units and for the contractor to provide other than "budgetary estimates" for the cost of production quantities. DED also pointed out that there are contractual ways of protecting the Government's interests in cases of this type. One of those discussed was to obligate FY-69 funding against the delivery of an acceptable pre-production prototype or small production run (the delivery of five acceptable units) before actual production of the bulk of the order is authorized. This of course offers considerable protection to the Government since actual production cannot start until the acceptance of the first units. However, there are risks involved, particularly in the area of contractual complications, since--as previously mentioned--we cannot write firm specifications until the delivery of the prototype, and [redacted] cannot give firm funding for production quantities until they have finished the development of the prototype and have reviewed our final specifications for cost impact. However, if it is mandatory that we obligate our FY-69 funding, this is the manner in which it could be accomplished with the least risk to the Government.

25X1

5. Furthermore, there is a technical risk; the Rhomboid package is a highly sophisticated state-of-the-art optical device--attested to by the fact that nine companies were solicited and only one proposed. However, should we authorize FY-69 funding for production quantities, and then find that the prototype is unacceptable, we would be unable to spend the FY-69 funding for rhomboids and would have to return it to the Agency, which might, or might not, be more embarrassing than returning it at this time. We currently have a reasonable degree of confidence of success if we follow the options presented to us by [redacted] Nevertheless, there is still always a possibility that the system will not function properly. [redacted] has a high degree of confidence that they can make the system work. However, they had the same degree of high confidence prior to the current problems. During the discussions with [redacted] I asked them if they would consider undertaking the development as a fixed price contract. They said they would prefer not to but that they would certainly be willing to consider it. It is not really desirable in this case that they do accept a fixed price contract. The question was mainly initiated to determine their degree of confidence in the development. Predicated upon their answer, it would appear that it was quite high.

25X1

25X1

25X1

25X1

6. The technical risk and the contractual problems involved in obligating FY-69 funding prior to the delivery of the prototype were explained to IEG and PPBS in detail. It is obviously to DED's advantage to wait until the delivery of the prototype and complete test and evaluation prior to

25X1

SUBJECT: [redacted] Model II Rhomboids

entertaining a production contract. This would also be more desirable to Office of Logistics Procurement Division. However, if it is essential to spend the 69 funding in this manner, it can be done in the manner discussed as long as everybody involved is fully aware of the technical and contractual risk involved.

[redacted] 25X1

Deputy Chief,
Development & Engineering Division, TSSG

Distribution:
3 - NPIC/TSSG/DED

25X1 NPIC/TSSG/DED/[redacted] (26 May 69)